CarLog User-Manual

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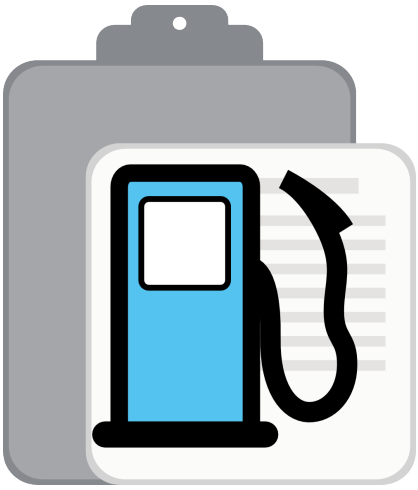
August 12, 2013



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1 Synopsis

CarLog is an Android-based app to log and keep track of the fuel consumption of the personal "car fleet". It allows the tracking of multiple cars and is able to provide statistics about the mileage, average fuel-consumption and total fuel-consumption. Depending on the user's selection, the app will present this data in numerical form or through pie-, bar- and line-charts.

1.1 Version

This version of the CarLog User's Manual is for CarLog Version 1.2.0. This version brings new functionality to the app not present in earlier versions, as well as bug-fixes and improvements.

1.1.1 Revision of the Manual

This is the second revision of the CarLog. It is intended for version 1.2.0 of CarLog, and it is the first revision available as PDF.

The first revision of the manual was available as HTML only and was intended for all CarLog-versions prior to 1.2.0 .

1.1.2 Version History

Version 1.0 - 1.0.1:

- All screens are scrollable now, to reflect that smaller-sized displays might not be able to show complete activities at once.
- Minor improvements

Version 1.0.1 - 1.0.2

- icosahedron-icon adjusted to new Dimension V color-scheme
- Initial start-up one-time dialogs implemented for legal disclaimer, guidelines and version change-log.
- General improvements.

Version 1.0.2 - 1.2.0

- FIX: Time for fuel-entries was of by DST-Offset.
- FIX: Time was always shown in local format, even when system was configured to show time in 24-hour-format.
- NEW: Support for different tire-sets implemented. Select between "All Weather", "Winter" or "Summer" in Car-Details for default-tire, and per each fuel-entry. The chosen tire influences the statistics.
- NEW: Each fuel-entry may now receive a text-note, e.g. for explaining certain circumstances and occurrences between refueling.
- IMP: several UI / handling improvements

1.2 General Guidelines for Using the App

In order for the app to produce correct and reliable results, a few guidelines should be followed. If they are not followed, the app cannot produce correct results.

1. Always empty the fuel-tank completely
2. Always fill-up your fuel completely
3. Reset your car's trip meter with every refueling, and use it to measure the mileage between the refuels.

When these three simple rules are followed, the app will produce correct and reliable results.

1.3 Contact Information

1.3.1 Internet

Website:	www.dimensionv.de/
CarLog specific web-address:	www.dimensionv.de/CarLog
E-Mail:	contact@dimensionv.de
	volkmarseifert@gmail.com

Table 1.1: Internet Contact Information

1.3.2 Postal Address

Volkmar Seifert
Josef-Mueller-Str. 10
D-94501 Aldersbach
Germany / Deutschland

1.4 Legal Disclaimer

By installing and using this software, you agree to the following terms:

The author of this software cannot be held responsible for financial losses or any kind of other problems you might have run into because of using this app, or because you relied on the numbers presented in this app. Though the author took great care in testing this software, it is still just software and thus bound to certain limits: rounding errors and other problems or bugs might happen, which will give inaccurate results. Besides that, please be aware of the fact that this software uses a simplified model of reality, and does not take weather-conditions, the condition of each individual car, etc., into account. Thus, should the results evaluated by this app differ from reality by whatever degree, the author cannot be hold responsible for that or any kind of consequences that might have arisen from that.

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2 How to Use the App

Because the usage of this app might not always be perceived as straight-forward as I intended it to be, this manual shall help to solve such issues and clarify how to use the app, where to put which value, and why.

2.1 The Main-Screen

Figure 2.1 shows the main screen of the app. It shows up upon app-start. In this screen, you can select the car you want to manage ("Current Car") (marked as (1) in Figure 2.1), and the actions you like to take. The following actions are available in the current version of CarLog:

- Add Car ((2) in Figure 2.1)
- Add Refuel Entry ((3) in Figure 2.1)
- View Fuel-Log ((4) in Figure 2.1)
- View Cars ((5) in Figure 2.1)

Figure 2.1: Main Screen

These actions are available via buttons on the main screen. Each will open a new screen, and provide specific features of CarLog. I will describe each action later in great detail.

The main-screen also has an options-menu. Depending on your version of Android, this options-menu is either available through the menu-button on your device, or through the action bar (i.e. just the way you are used to it).

The following options are available through the options-menu/action bar on the main screen:

- Settings ((5) in Figure 2.1)
- Version Information ((6) in Figure 2.1)
- Legal Disclaimer
- Acknowledgments
- About this App

All of these options will open a new screen, displaying the appropriate information. As most options should be pretty self-explaining (especially when activated), I will only describe the two most important options below.

Settings opens a new screen where you can define certain global parameters of the app. Please see Subsection 2.1.1, "The "Settings"-Screen" for more information.

Legal Disclaimer shows a legal disclaimer that is important to have been read and understood. It's the same text as in Section 1.4, "Legal Disclaimer". This text is also shown on the initial launch of CarLog as a dialog.

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2.1.1 The "Settings"-Screen

In this screen you can define/change a few global options that influence the general behavior of the app. There are two options available:

1. Count initial mileage as "Car only" (see (1) in Figure 2.2)
2. Use Statistics Cache (see (2) in Figure 2.2)

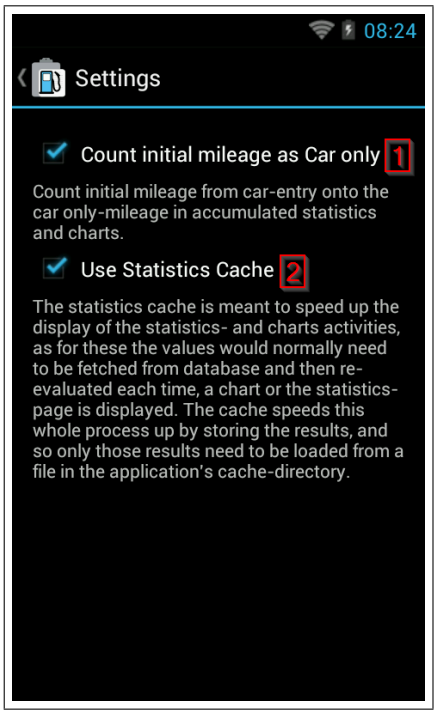
08:24
Settings
Count initial mileage as Car only
1
Count initial mileage from car-entry onto the car only-mileage in accumulated statistics and charts.
Use Statistics Cache
2
The statistics cache is meant to speed up the display of the statistics- and charts activities, as for these the values would normally need to be fetched from database and then re-evaluated each time, a chart or the statistics-page is displayed. The cache speeds this whole process up by storing the results, and so only those results need to be loaded from a file in the application's cache-directory.

Figure 2.2: Settings Screen

Each options is explained directly on the screen, too. There is no special saving operation necessary, as soon as you make a change, this change is valid and persisted (i.e. even when the app is completely stopped and killed, the option will remain as you want it to, when the app starts the next time.)

Count initial mileage as "Car Only" (see (1) in Figure 2.2) This parameter defines how the app handles the initial mileage and the mileage entered with each refuel-entry when evaluating the statistics and charts. Regarding the mileage, the app the app evaluates three groups of values in both statistics and charts: Absolute total accumulation, accumulation for car-only trips and accumulation for trips with a trailer. This parameter defines whether the initial mileage, as set for every car upon creating the car-entry (see "Adding a Car"), should be added on top of the accumulated mileage of every refuel-entry without the trailer-flag, or not. If you want this behavior (which is the default), this option has to be checked. If you don't want this, uncheck the option.

Use Statistics Cache (see (2) in Figure 2.2) Evaluating the statistics is probably the most expensive (i.e. time-consuming) operation in the whole app. The refuel-data-table has to be read with all entries for the current car, and then the statistics have to be computed using the data from each of the entries. With only a few entries, this happens almost immediately without being noticed, but the more refuel-entries you create, the longer this operation will take. (Ok, that's the obvious part :))

To make the experience of using this app a bit more comfortable for you, the result of these computations can be stored in a cache. This cache will only store the *results* for the *current* car, and will be invalidated (i.e overwritten with new computations) when you *change the car* and *choose to view the "Statistics"-screen or a chart*. It will also be invalidated and the computations will be re-computed from scratch, when you add a *new refuel-entry* (see Subsection 2.2.2, "Adding a Refuel-Entry").

By storing the results of the computations in a cache, the whole process of fetching each entry from the database and computing all the values anew, becomes unnecessary. The results are read by highly optimized routines and thus available immediately. They can be used directly by the "Statistics"- and the "Charts"-screens, and no additional computations are necessary unless you haven't added a new refueling or changed the car.

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2.2 Adding Entries

2.2.1 Adding a Car

Before this app can do anything useful, you need to create a car-entry. Since the app is capable of managing more than one single car, every entry in the refuel-table is bound to a specific car. Because of this, you need to create at least one car-entry.

Adding a car can be done either by pressing the "Add Car"-button on the main-screen (see Section 2.1, "The Main-Screen"), by using the option “Add Car” from the car-list screen (see Section 2.4, "The Car-List") or by trying to add a refuel-entry directly. The app detects whether a car has been created before launching the "Add Refuel Entry"-Screen, and automatically branches off into the "Add Car"-screen, if no car is selected as “current car”. This can only happen when no car has been added, before.

In the "Add Car"-screen (please see Figure 2.3), there are five input-fields and two dropdown-boxes. Mostly, the information you provide here is only for display-purposes and to distinguish between cars on the user interface (UI). The "fuel-tank size" (the capacity of you car's fuel-tank), and "fuel-type" are only for informational purposes. All other fields do have a meaning throughout the app, which will be explained below.

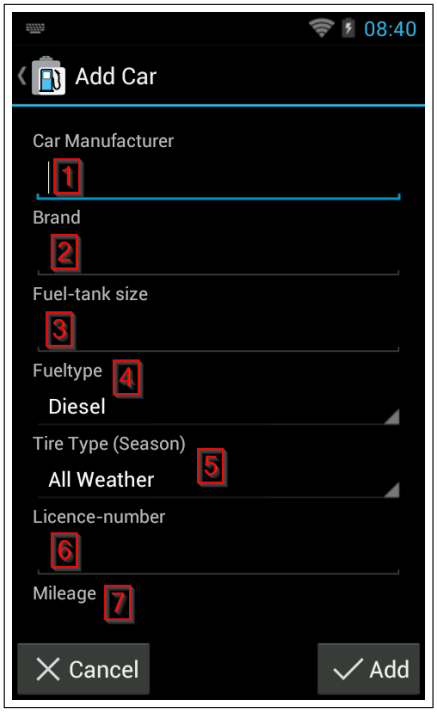

Figure 2.3: Add a Car

The “Car Manufacturer” ((1) in Figure 2.3) is only for informational purposes. Nonetheless, it needs to be filled out to provide better possibilities to distinguish between different cars.

The Brand Name and License-Number ((2) and (3) in Figure 2.3) will be used throughout the app to show which car is currently selected. Thus, these fields bear a certain importance despite not being used operationally, but for display-purposes to enable you to distinguish between multiple cars, even should they be from the same brand and of the same production-line.

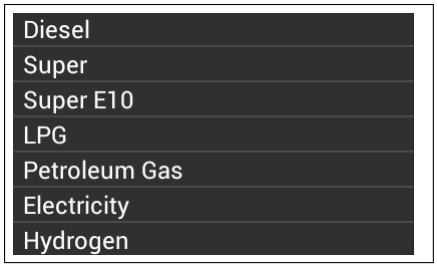

Figure 2.4: Fuel-type dropdown

The fuel-tank size ((4) in Figure 2.3), i.e. the capacity of your car's fuel-tank, is only for informational purposes, and not really used anywhere in the app. This might change in the future, but from the "Car List"-screen you can always choose to edit a specific car and change this (or any other) value.

The "Fuel-type" ((5) in Figure 2.3) defines which units are used and is intended for informational and display-purposes. You can select one of various fuel-types through a dropdown-box (shown by Figure 2.4). Please Note: cars with multiple kind of fuels are currently not supported. Please select the majorly used fuel-type for such cars.

Tire Type (Season) ((6) in Figure 2.3) This option defines which type of tires you use on your car. The type can be selected through a dropdown-list, shown by Figure 2.5.

Figure 2.5: Tire-type dropdown

As different kinds of tires have a different impact on the fuel-consumption, this is an important option. Statistics (Section 2.5, "Statistics") and charts (Section 2.6, "The Charts") are influenced by this options, since every fuel-entry is marked with the appropriate tire-type. This means, the tire-type has to be selected for each fuel-entry. To make it easier for you, the Refuel-Dialog takes the default-suggestion from the car-entry, which means from the value selected here.

The "Mileage"-entry ((7) in Figure 2.3) is operationally used data. Depending on what you have configured in the "Settings"-screen, this entry will be added on top of the car-only mileage-accumulation in statistics and charts.

2.2.1.1 Closing the Dialog

The dialog can be closed using one of three ways: hitting "back" or pressing one of the two buttons on the bottom of the screen. The way the dialog is quit defines how the app treats the entered data.

With either the “Back”- or the “Cancel”-button, the data is discarded. The dialog will return to its caller. If the extra-launcher was used, this usually means the Apps-List or Home-Screen.

If the “Add”-button was pressed, the app will store the data. The dialog will then return to its caller, which can be the Main Screen, the car-list, or the “Add Refuel-Entry”-dialog. If the statistics-cache is used, it will be invalidated.

2.2.2 Adding a Refuel-Entry

The "Add Refuel Entry"-Screen is a bit more complex than the "Add Car"-Screen. It's a very special screen, actually, because it's the only screen that has a launcher of its own in the apps-menu of Android. It can be called directly from outside the app to quickly enter the refuel-data without the necessity to launch the app and hit some more buttons to launch the actual add-dialog. This "extra-launcher" has the same icon as the actual app-launcher (except a green Plus is added to it), and is called "Add Refuel Entry". Almost all fields in this dialog-screen are operationally used, one way or the other, e.g. for statistical computations. The only value that so far has mainly informational character (and thus is completely optional), is the "Price per unit"-field. It will, however, be used to compute the total price per filling in the Fuel Log list (see Section 2.3, "The Fuel-Log").

The dialog is tabbed, with the “Details”-tab being open by default. This tab contains most of the data relevant for a refuel-entry, like date and time, the amount of fuel, price, mileage, tire-type and whether the major time of the last tour was done with a trailer.

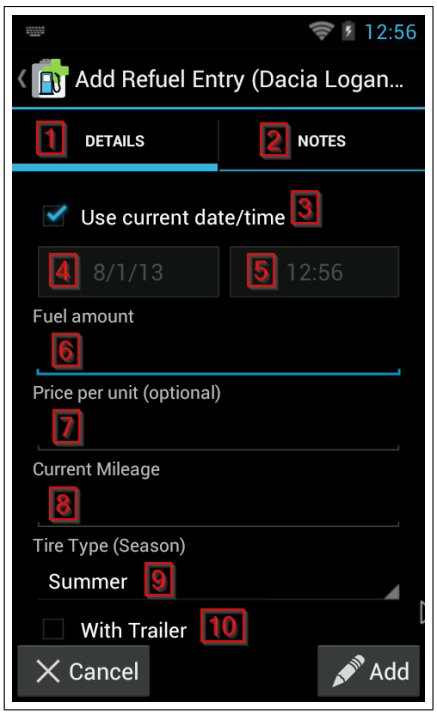

Figure 2.6: Add a refuel-entry

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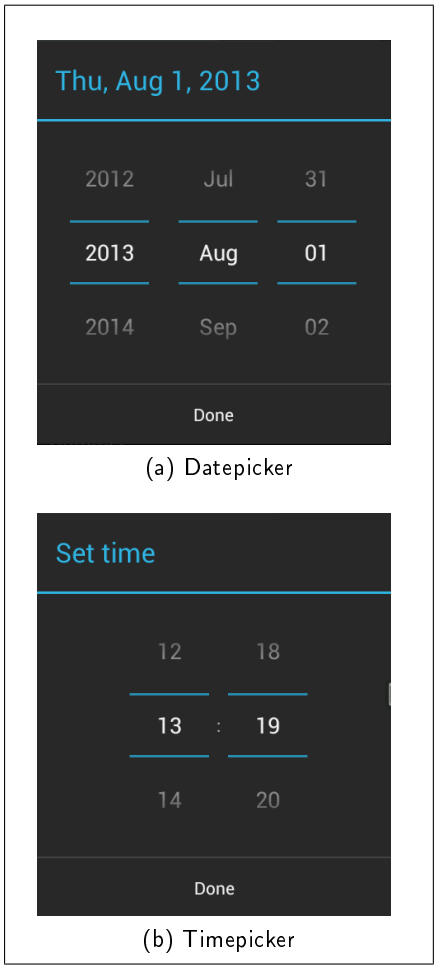
The second tab is the “Notes”-tab. It contains one input-field, a textbox in which you can enter a note about special occurrences between refueling, like traffic holdups etc. It is completely optional and only for informational purposes, because it might be that in a few months, the cause why a certain refueling went way out of the normal fuel-consumption, might be a bit hard to remember.

2.2.2.1 The Details-Tab



(a) Datepicker

(b) Timepicker

Figure 2.7: Date/Time Dialogs

Current time and date if you have just filled up your car with you car's favorite type of fuel, and are adding the refuel-entry, now, you probably might want to leave the "Use current time"-check-box checked. It means, that the app will use the current time and date for the entry (which are also displayed on the disabled buttons below the check-box).

However, if your refueling has been a while back, you can nonetheless enter the appropriate data, with the appropriate date and time. Just uncheck the check-box, and the buttons below the check-box will become enabled. If you press them, an appropriate date- or time-picker dialog will show up, letting you select the correct date and time.

The "Fuel-amount"-field is very important. You need to enter the exact amount you refueled, here. It used to compute the total overall fuel-consumption, the total fuel-consumption with and without trailer, as well as the average fuel-consumption (in combination with the "Current Mileage"-field). The average-fuel consumption as computed three times: for "Car-only"-entries, for "With Trailer" entries, and an accumulated overall average fuel consumption.

Please note that the app can only function properly if you always empty your tank completely before refueling, and that you always need to fill up your tank completely, too, in order to have accurate computations. See also the guidelines, mentions in the synopsis.

The "Price per unit"-field is completely optional, and currently without any operational meaning. It is purely informational, and present should the app, in some later version, really provide a few statistics about the prices, too.

The "Current Mileage"-field is the second very important field in this dialog. It is used to compute the total overall mileage, the total mileage with and without trailer, and to compute the average fuel-consumption, for "car-only", "With Trailer" and the overall average. Please use the trip meter for this entry, because you'd only want the specific fraction of the total mileage your car has traveled that you really used with your last refill. The app won't compute accurate results, if you enter the total mileage here.

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Figure 2.8: Tire-type dropdown

The "Tire-Type (Season)"-dropdown-box is used to determine which set of tires your car currently uses. As already described in Subsection 2.2.1, "Adding a Car", this tire-type influences the way the statistics are evaluated, and thus how the charts will look like. The Refuel-Dialog will always take the car's selection as default-suggestion, but you can change that selection using this dropdown-box. The selection on the car-entry, however, will remain unchanged. You will have to explicitly change that one in the car-Dialog.

The "With Trailer"-check-box is only useful, if you traveled the complete, or at least the major part of the entered mileage, with a trailer attached to your car. The app will compute separate statistics for entries with this flag set. It is meant to see the difference in fuel-consumption when driving with and without a trailer, and to be able to optimize the driving style, if so wished.

2.2.2.2 Closing the Dialog

The dialog can be closed using one of three ways: hitting "back" or pressing one of the two buttons on the bottom of the screen. The way the dialog is quit defines how the app treats the entered data.

With either the "Back"- or the "Cancel"-button, the data is discarded. The dialog will return to its caller. If the extra-launcher was used, this usually means the Apps-List or Home-Screen.

If the "Add"-button was pressed, the app will store the data. The dialog will then return to its caller, which can be the Main Screen or the fuel-log, If the statistics-cache is used, it will be invalidated.

2.3 The Fuel-Log

Figure 2.9 shows a screen-shot of the Fuel-Log-screen. This screen lists all refuel-entries you have added to the log (for the current car), in chronological ascending order (that means it starts with the oldest entry and the latest entries are at the bottom of the list). Because the latest entries are the end of the list, the table scrolls automatically to the last entry, when the log is opened, or a new entry has been added.

If you scroll to the right by swiping across the screen, the table will scroll horizontally and show more information, like average fuel consumption, whether it is a trailer or non-trailer entry, and how much the filling had totally cost - if you have provided a unit-price.

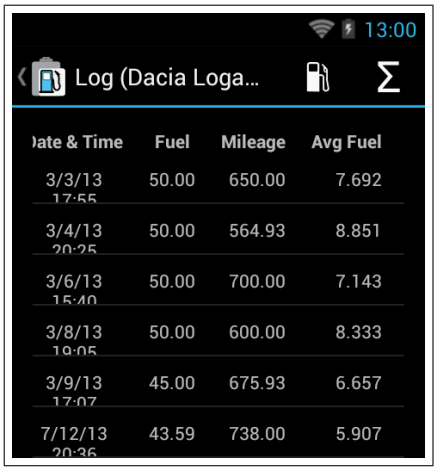

Figure 2.9: Fuel-Log (list of refuel-entries)

2.3.1 Context Menu

A context-menu (Figure 2.10a) will open, if you do a long-press on an entry. It has three options: "View Details", "Edit" and "Delete".

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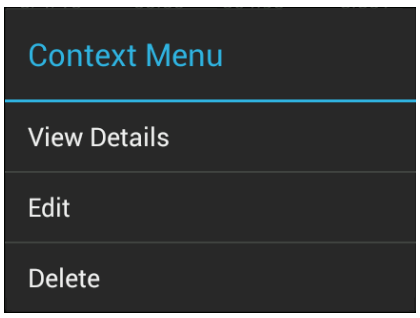
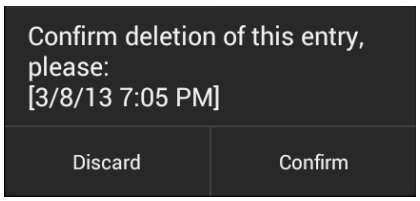


(a) Context Menu



(b) Delete Log-Entry Confirmation Dialog

Figure 2.10: Context Menu and Confirmation Dialog

View Details: this option opens a new screen that is essentially the same screen as for adding a new refuel-entry (Subsection 2.2.2, "Adding a Refuel-Entry"). The only difference is the missing date/time-check-box and that all input-fields are disabled. This screen has two buttons at the bottom, "Cancel", which simply closes the screen, and "Edit", which immediately enables all input-fields so that you can make changes to the entry. The "Edit"-button becomes a "Save"-button and stores the changes in the database before closing the screen.

Edit: opens the same screen as the "View Details"-button, with the difference that now all fields are immediately enabled for editing.

Delete: this option opens a pop-up dialog (Figure 2.10b) asking for confirmation to delete the selected entry. You can verify that you have selected the correct entry by looking at the date and time, which will be displayed in your local format.

If you hit "discard", nothing will be done, the dialog closes and the entry remains in the log. That is advisable if it was the wrong entry, or you hit “delete” accidentally.

If, however, you press "confirm", the entry will be removed from the log *permanently and irrevocably*.

2.3.2 Options-Menu

The List also comes with an options-menu, available via menu-button or action bar, depending on your Android-version. This menu contains several options:

Add Refuel Entry opens the "Add Refuel Entry"-dialog. You can use this to add another entry to the log. (see Subsection 2.2.2, "Adding a Refuel-Entry")

Statistics opens the Statistics-screen (see Section 2.5, "Statistics").

Mileage Chart opens the Charts-screen for displaying a pie-chart with the accumulated mileages (see Subsection 2.6.1, "Mileage").

Average Fuel Chart opens the Charts-screen for displaying a bar-chart with the accumulated average fuel consumption (see Subsection 2.6.2, "Average Fuel").

Total Fuel Chart opens the Charts-screen for displaying a pie-chart with the accumulated total fuel consumption (see Subsection 2.6.3, "Total Fuel").

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Effective Fuel Chart opens the Charts-screen for displaying a line-chart with the effective fuel consumption per entry. This chart might get quite crowded over time as every entry in the log will be present on the appropriate lines of the chart. (see Subsection 2.6.4, "Effective Fuel")

2.4 The Car-List

The Car-List-screen (Figure 2.11) lists all the cars, which have added to the database. The cars are listed in the order in which you have added them.

Just like the entries in the fuel-log (Section 2.3, "The Fuel-Log"), the cars are presented in a table, listing each attribute of the car (horizontal scrolling will be required on phones, tablets might be big enough to show all columns at once). If more cars have been added to the list than can be displayed at once, you can scroll down to see the other cars.

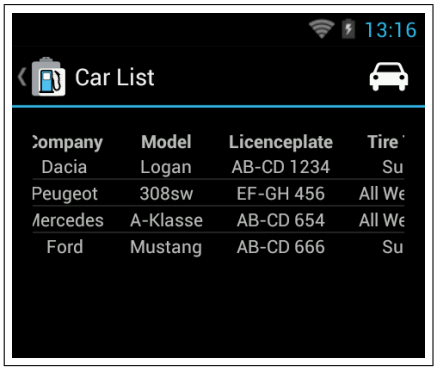
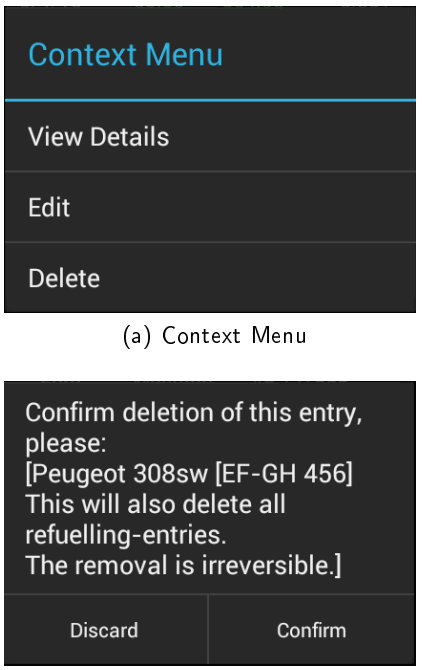


Figure 2.11: The Car-List Screen

2.4.1 Context Menu

A context-menu will open, if you do a long-press on an entry. It has three options: "View Details", "Edit" and "Delete".



(a) Context Menu

(b) Delete Car-Entry Confirmation Dialog

Figure 2.12: Context Menu and Confirmation Dialog

View Details - this option opens a new screen that is essentially the same screen as for adding a new car. The only difference is that all input-fields are disabled. This screen has two buttons at the bottom, "Cancel", which simply closes the screen, and "Edit", which immediately enables all input-fields so that you can make changes to the entry. The "Edit"-button becomes a "Save"-button and stores the changes in the database before closing the screen.

Edit - opens the same screen as the "View Details"-button, with the difference that now all fields are immediately enabled for editing.

Delete - this option opens a pop-up dialog asking for confirmation to delete the selected entry. If you hit "discard", nothing will be done, the dialog closes and the car remains in the list. If, however, you press "confirm", the entry will be removed from the log permanently and irrevocably.

ATTENTION: please be aware of the fact that a deletion of a car-entry will also result the complete removal of all log-entries of this car. This action is completely irrevocable. The dialog shows an appropriate warning message, too, as you can see in the screen-shot.

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2.5 Statistics

The statistics-screen has three tabs, which you can change either by tapping on the tab-latch or by swiping your finger across the screen. This works not only on Android 3+, but also on Android 2.3.3 and above.

Each tab is composed in the same way: it is divided into three sections, labelled "Total", "Car only" and "Car with Trailer".

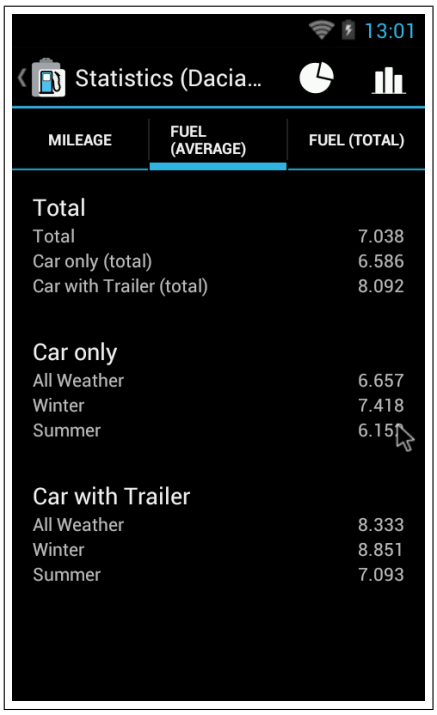

Figure 2.13: Statistics-Screen

Total is the accumulation of both sections "Car Only" and "Car with Trailer", showing the overall total values for the tab. It shows three values: the total accumulation of all values, and the accumulation of "Car only" and "Car with Trailer" separately.

Car only shows the statistical values for all fuel-entries not marked as "With Trailer, meaning all those entries that are "car only". Like "Total", it also shows three values, though this time they are "All Weather", "Winter" and "Summer". These values are the tire-/season-types selected per fuel-entry. It is very likely for one or two of these values be 0 - and depending on what you select per entry, they may remain 0. As mentioned before, these values represent the tires you are using, or to be more precise, the tires you have selected on the "Add Fuel Entry"- (Subsection 2.2.2, "Adding a Refuel-Entry") or "Edit Fuel Entry"-screen.

Car with Trailer is pretty much like the "Car only"-section, with the difference that the values here represent all fuel-entries that are marked "With Trailer".

2.5.1 Statistics-Cache and -Evaluation

The statistics are evaluated when the statistics-screen or one of the charts-screens (please see Section 2.6, "The Charts") is opened. Because this can be a time-consuming process, especially if there are lots of fuel-entries in the database, the resulting values can be cached. If you have activated the option "Use Statistics-Cache" in the Settings, then most of all times the statistics or charts are opened, the values will just be read from the cache. If, however, you add or edit a fuel-entry or switch the car on the welcome-screen, the statistics-cache will be invalidated and the statistics will have be to re-computed - after which they will be written into the cache, of course.

2.5.2 Options-Menu

The Statistics-Screen has an options-menu, available via menu-button or action bar, depending on your Android-version. This menu contains several options:

Mileage Chart opens the Charts-screen for displaying a pie-chart with the accumulated mileages (see Subsection 2.6.1, "Mileage").

Average Fuel Chart opens the Charts-screen for displaying a bar-chart with the accumulated average fuel consumption (see Subsection 2.6.2, "Average Fuel").

Total Fuel Chart opens the Charts-screen for displaying a pie-chart with the accumulated total fuel consumption (see Subsection 2.6.3, "Total Fuel").

Effective Fuel Chart opens the Charts-screen for displaying a line-chart with the effective fuel consumption per entry. This chart might get quite crowded over time as every entry in the log will be present on the appropriate lines of the chart. (see Subsection 2.6.4, "Effective Fuel")

2.5.3 Mileage Statistics

This tab shows the mileage-specific statistics. If you have checked "Count initial mileage as car only" in the settings, the initial mileage set for per car will be added onto the total mileage value (only for the current car, of course). It will not influence the other values, only the absolut total and the car-only total values.

2.5.4 Average Fuel Statistics

This tab shows the statistics for the average fuel consumption. It is the tab shown by default when opening the statistics screen.

2.5.5 Total Fuel Statistics

This tab shows the total fuel statistics, meaning how many units of fuel have been fueled over time.

2.6 The Charts

The charts-screen displays different types of charts, depending on your selection in the options-menu of the Fuel-Log or the Statistics-Screen.

There four types of charts available, which will be each described in the following subsections:

1. Subsection 2.6.1, "Mileage"
2. Subsection 2.6.2, "Average Fuel"
3. Subsection 2.6.3, "Total Fuel"
4. Subsection 2.6.4, "Effective Fuel"

Each of the chart-screens is divided into three tabs, one showing the totally accumulated statistics, the second showing the statistics for "car only"-values, and the third one showing the statistics for "car-with-trailer"-entries. All chart-values are based on the values you can read on the statistic-screens. The only chart with values that are not shown on the statistics-screen, but accumulated during the computation of the statistics, are the effective fuel charts.

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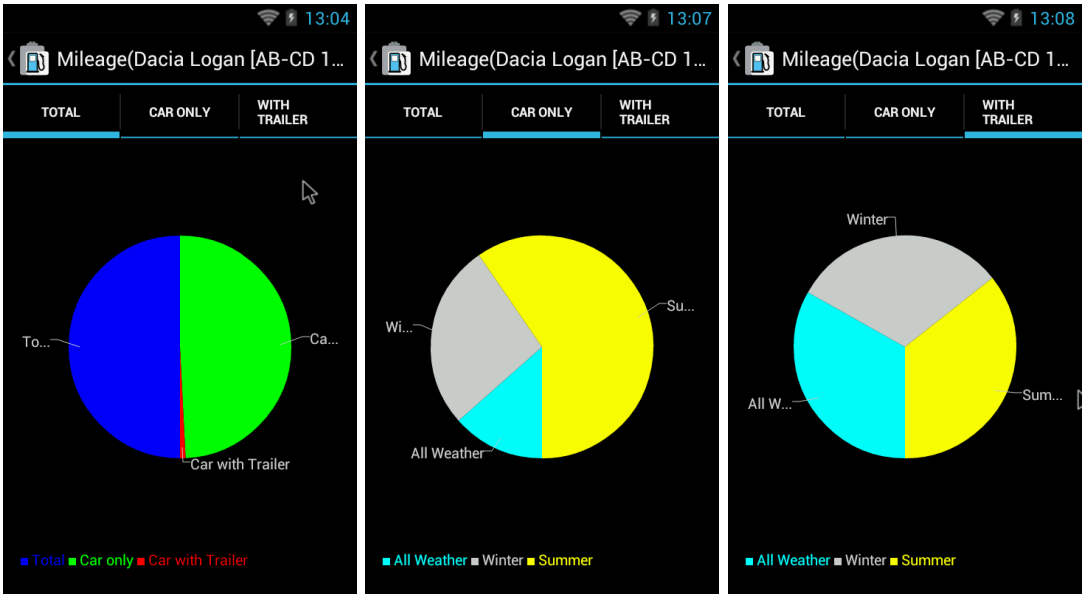
2.6.1 Mileage



(a) Total mileage (b) Car-only mileage (c) Car with trailer mileage

Figure 2.14: The mileage charts

The mileage charts are pie-charts showing the mileage accumulated over time. The charts here are based on the statistic-values you can see on the statistics-screen.

The *total* tab shows the absolute total accumulation of both, *car only* and *trailer* totals, as well as the *car-only* total and the *trailer* total.

The *car only* tab shows the car only statistics as a pie-chart splitted into *all weather*, *winter* and *summer* tire-types.

The *with trailer* tab shows the *trailer* statistics as a pie-chart splitted into *all weather*, *winter* and *summer* tire-types.

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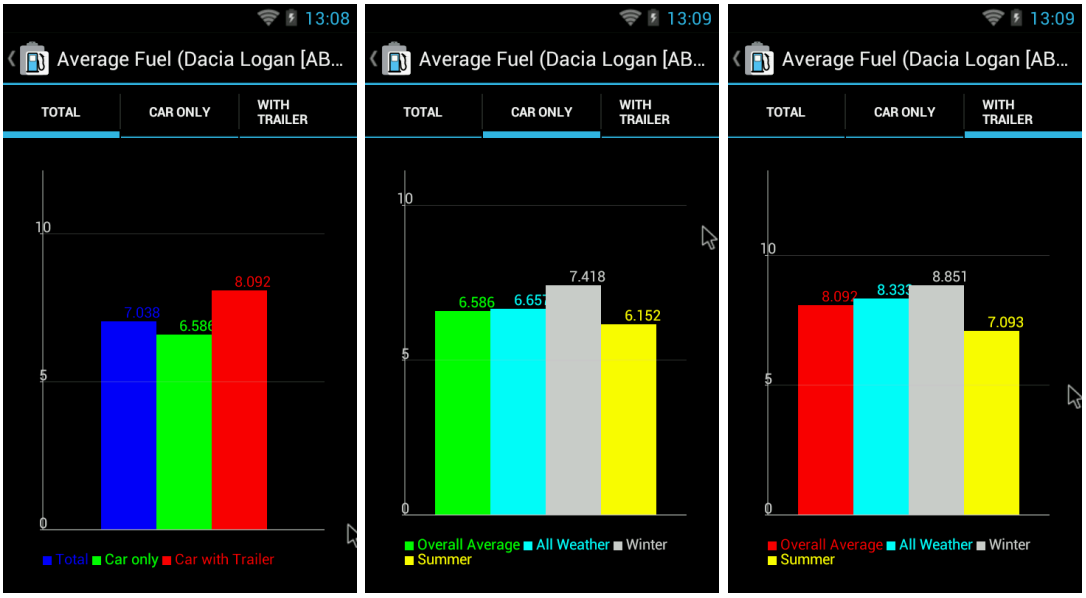
2.6.2 Average Fuel



(a) Total average fuel chart (b) Car-only average fuel chart (c) Car-with-trailer average fuel chart

Figure 2.15: The average fuel charts

The average fuel charts are bar-charts showing the average fuel consumption. The charts here are based on the statistic-values you can see on the statistics-screen.

The *total* tab shows the absolute total accumulation of both, *car only* and *trailer* totals, as well as the *car-only* total and the *trailer* total (meaning three bars).

The *car only* tab shows the car only statistics as a bar-chart splitted into *all weather*, *winter* and *summer* tire-types.

The *with trailer* tab shows the *trailer* statistics as a bar-chart splitted into *all weather*, *winter* and *summer* tire-types.

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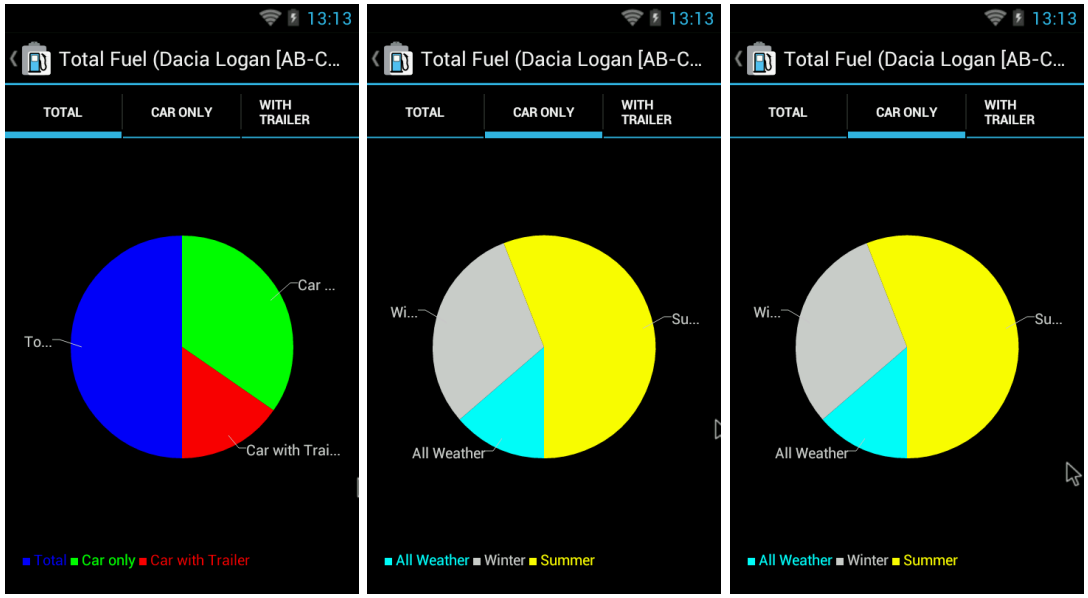
2.6.3 Total Fuel



(a) Total fuel total chart (b) Car-only total fuel chart (c) Car-with-trailer total fuel chart

Figure 2.16: The total fuel charts

The total fuel charts are pie-charts showing the total fuel consumed so far. The charts here are based on the statistic-values you can see on the statistics-screen.

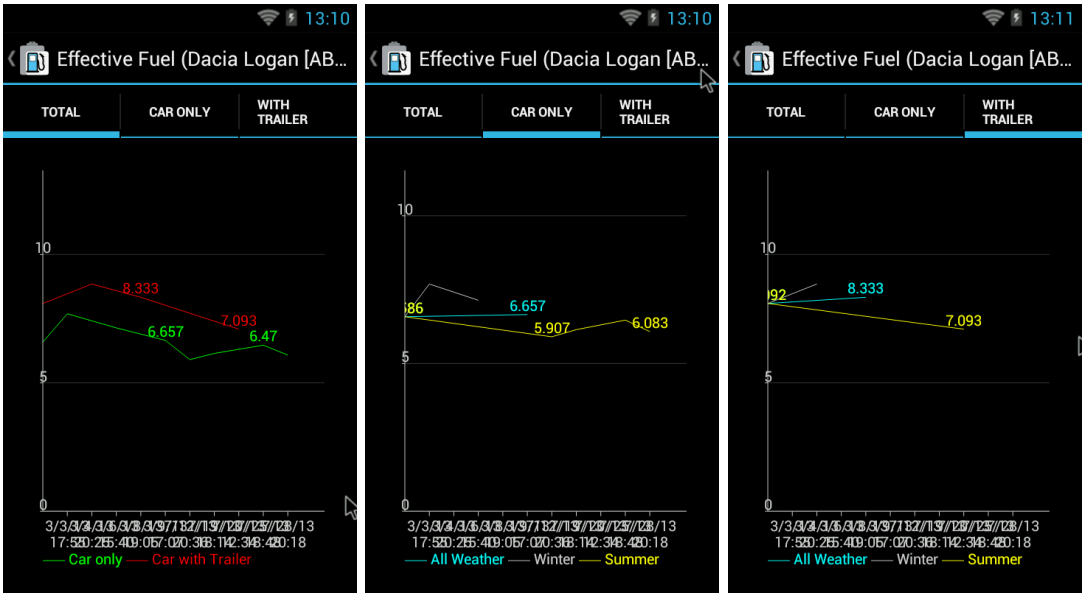
As all charts, there are three tabs, *total*, *car only* and *with trailer*.

The *total* tab shows the absolute total accumulation of both, *car only* and *trailer* totals, as well as the *car-only* total and the *trailer* total.

The *car only* tab shows the car only statistics as a pie-chart splitted into *all weather*, *winter* and *summer* tire-types.

The *with trailer* tab shows the *trailer* statistics as a pie-chart splitted into *all weather*, *winter* and *summer* tire-types.

2.6.4 Effective Fuel



(a) Total effective fuel chart (b) Car-only effective fuel chart (c) Car-with-trailer effective fuel chart

Figure 2.17: The effective fuel charts

The effective fuel charts are line-charts showing the each entry of the fuel-log with the fuel-value on the y-axis and the date on the x-axis. This shows each fuel-entry against all others very nicely. This diagram (as easily visible in Figure 2.17) can quickly become crowded, and the x-axis unreadable. This is because of limited horizontal space and the fact that the diagram is currently not horizontally scrollable. If you turn the phone into landscape-mode, it will be better until enough entries have been collected that the space in landscape-mode runs out, too.

The *total* tab shows the absolute total accumulation of both, *car only* and *trailer* totals, as well as the *car-only* total and the *trailer* total (meaning three different graphs).

The *car only* tab shows the car only entries as a line-chart splitted into *all weather*, *winter* and *summer* tire-types.

The *with trailer* tab shows the *trailer* entries as a line-chart splitted into *all weather*, *winter* and *summer* tire-types.

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